

# Memorandum

To: Panel Members

Date: April 24, 2003

From: Charles Rufo, Manager  
Peter DeMauro, General Counsel

Analyst: J. Daunt

Subject: One-Step Agreement for **Calpine Operating Services Company, Inc.**  
www.calpine.com

## **CONTRACTOR:**

- Training Project Profile: Retraining: Companies with Out-of-State Competition
- Legislative Priorities: Locating into or Expansion within California  
Moving to a High Performance Workplace
- Type of Industry: Services
- Repeat Contractor: Yes
- Contractor's Full Time Employees:
  - Company Wide: 3,410
  - In California: 1,197
- Fringe Benefits: Yes
- Union Representation: No
- Name and Local Number of Union representing workers to be Trained: N/A

## **CONTRACT:**

- Program Costs: \$234,000
- Substantial Contribution: \$0
- Total ETP Funding: \$234,000
- In-Kind Contribution: \$663,800
- Reimbursement Method: Fixed-Fee
- County(ies) Served: Contra Costa, Kern Lake, Monterey, Sacramento, San Diego, Santa Clara, Santa Cruz, Solano and Sutter
- Duration of Agreement: 24 Months

**SUBCONTRACTORS:**

None

**THIRD PARTY SERVICES:**

None

**PRIOR PROJECTS:**

The following are completed project statistics for ETP Agreements with this Contractor within the last five years:

Agreement No.	Locations (Cities)	Term	Agreement Amount	Amount Earned	% Earned
ET01-0178 Retrainees	Aidin, Bear Canyon, Calistoga, Folsom, Gilroy, King City, Pittsburg, San Jose, Sonoma, Watsonville, West Ford Flat and Yuba City	12/01/2000 -11/30/2002	\$1,087,340	\$222,396*	20%*

\*Comments: Final invoices for this Agreement have not been completely processed. As a result, lower-than-anticipated results are indicated in this chart. The anticipated total earnings for this Agreement are \$288,256, out of a maximum total dollar amount of \$1,087,340 or a performance rate of 26.5 percent. Because Calpine's training department did not exist before 1999, the company had no experience prior to its first ETP training project with the planning and implementation of a formal training program.

**NARRATIVE:**

This proposal was initially presented to the Panel at the March 2003 Panel meeting. The Panel had concerns about the following items: 1) prior contract performance; 2) 200-hour waiver request for 20 trainees in Job Number 3; and 3) possible duplication with existing apprenticeship programs. Each of the above items is addressed on pages 5 and 6 of this Memo.

This will be the second ETP project with Calpine Corporation. The first ETP Agreement was between ETP and Calpine Corporation, and this Agreement is between ETP and Calpine Operating Services Company, Inc., a subsidiary of Calpine Corporation. Since the applicant is requesting reimbursement for the training of employees for both Calpine Corporation and Calpine Operating Services Company, Inc., company officials have submitted a consortium accord.

Calpine has been determined eligible for standard retraining of its internal corporate support functions located in San Jose (corporate headquarters) and Folsom, California, under Title 22, California Code of Regulations, Section 4416(d)(1). The following corporate support function groups at these facilities provide internal, centralized functional support for Calpine and Calpine subsidiary facilities located both inside and outside of California: Human Resources, Legal, Marketing, Business Development, Power Plant Commissioning & Start Up Group, Training, Turbine Maintenance Group, Procurement and Plant Support and Personnel.

Additionally, the following locations for Calpine Operating Services Company, Inc., are eligible for standard retraining under Title 22, California Code of Regulations, Section 4416(a)(3, 4) for facilities providing electric power distribution to the North American power grid: Coyote, Fairfield, Gilroy, King City, Lebec, Middletown, Pittsburg, San Diego, San Jose, Suisun City, Watsonville, and Yuba City, California.

**NARRATIVE:** (continued)

Founded in 1984 in San Jose, California, Calpine is an independent power company engaged in the development, acquisition, ownership, and operation of power generation facilities. It sells electricity, predominately in the United States to a variety of end-users such as electric utilities, municipalities, industrial companies, and government institutions. Between its founding and the turn of the century, Calpine grew from an organization with a one-megawatt interest in a geothermal facility to one of the nation's leading independent power producers.

The company states it currently has 16,889 megawatts in operation, 11,650 megawatts in construction and 1.1 trillion cubic feet of proven natural gas reserves. In addition to producing significant quantities of power through traditional methods such as natural gas, Calpine is one of the world's largest producers of geothermal power which uses underground heat to produce steam for generating renewable "green" electricity.

Calpine Corporation has been headquartered in San Jose since its founding. In addition to producing power on an ongoing basis, Calpine has embarked on a \$15 billion construction program which includes building a number of new California power plants, as follows: Metcalf Power Project, in Coyote; Wolfskill Energy Center, in Fairfield; Pastoria and Pastoria Energy Facility, in Lebec; Otay Mesa, in San Diego; and Los Esteros, in San Jose.

Calpine officials have determined that after deregulation the company must improve its competitive position to succeed in the marketplace. To accomplish this, training is required. The company has formulated a plan to train 320 of its employees in a program that includes training in Commercial Skills, Computer Skills and Management Skills. Calpine's overall goals are to enhance productivity and improve quality improvement practices throughout the employee population. Company officials also expect improvements in employee job security as a result of the training.

The company now seeks ETP's assistance in training employees of the Calpine corporate headquarters in San Jose and at the Folsom office, as well as operators at the company's various California power plants. Calpine Operating Services Company is requesting ETP funds to retrain 320 employees in four types of training that supplement the company's ongoing training efforts.

**Commercial Skills:** Plant Operators, Plant Maintenance Staff, Technicians, Engineers, Supervisors, and Managers will be provided Commercial Skills training. Calpine Operating Services Company expects that this training will give its employees a thorough understanding of the production process and procedures involved in efficient, successful operation of commercial electrical power production facilities. These employees are required to perform the various processes involved in Calpine's production systems. Commercial Skills training will involve classroom and laboratory training in skills such as plant operations, instrumentation, turbines, maintenance processes and procedures, troubleshooting and problem solving. In addition, Clerks and Administrative Support Staff will receive training in the Power Plant Basics/Fundamentals portion of the Commercial Skills portion of the curriculum. The purpose is to improve overall efficiency by providing all employees with essential knowledge of the company's function.

**Computer Skills:** Plant Operators, Plant Maintenance Staff, Technicians, Engineers, Supervisors, and Managers, as well as Clerks and Administrative Support Staff will be provided Computer Skills training. Different employee groups will take different skill sets in Computer Skills, based on the particular software and hardware that are involved in the performance of their respective occupations. Company officials have determined that the skill levels of employees vary widely throughout the various company units and locations. This affects efficiency and productivity negatively. Training in Computer Skills is

**NARRATIVE:** (continued)

designed to provide more efficient use through greater uniformity of knowledge and skill among employees. In addition, the Computer Skills training is designed to give employees customized training in accord with their various occupations, and the technological skills to enable them to identify and solve specific problem areas at their job sites.

**Management Skills:** Managers and Supervisors will receive training in Management Skills that will provide thorough instruction in Performance Management, and Business and Leadership Development in keeping with the kind of workplace environment that Calpine officials have determined to be most conducive to the effective communication and achievement of the company's overall business goals. Often, supervisory and management personnel are promoted from within, based on their level of work as frontline employees. While such workers possess superior technical skills, they generally lack skills as supervisors and managers. The Management Skills training is designed to address this need.

**Supplemental Nature of Training**

In the past Calpine has offered training in the classes listed in the curriculum, with the exceptions of 1) DatasplICE (handheld inventory scanning) in the Computer Skills module, 2) the management program, and 3) the plant training that the company is proposing for the 20 trainees in Job Number 3, involving new material developed specifically for each new plant. The training format provided for past training has been classroom training at Calpine facilities throughout the state. Although some Calpine employees have received some of this training, these same employees will not be included under the training project covered in this application.

Calpine is also including training that has not been offered in the past to any of its employees. The training in Management Skills is a new offering to management staff. In addition, training for frontline workers who will operate Calpine's new plants is unique to each plant, in that materials have been developed specifically for the particular plant's configuration and equipment. Materials must be updated to keep up with new technology. An example is the instruction in the use of hand-held DatasplICE scanners, to be provided for the first time in this program.

Training methods are the same as those previously employed, with the exception of Distance Learning, which will involve 20 percent or less of the proposed program.

Even though limited training is expected to occur in some form, Calpine officials state that without ETP funding there would be less training done in California because of budget constraints, resulting in the loss of some of Calpine's trainers. Far less training would consequently be accomplished, according to company officials.

Calpine plans to continue their training program beyond the term of an ETP Agreement, adding new classes and updated materials as needed to maintain productivity and competitiveness. Company officials state that Calpine will not be receiving funding for training from any other source.

**In-Kind Contribution**

The company is committing an in-kind contribution to the project as follows:

Wages and benefits to be paid to trainees during training	\$545,000
Additional Job Number 3 training tied to ETP class/lab training, but not included in the ETP funding request	46,800
On-the-job training tied to ETP class/lab training, but not included in the ETP funding request	<u>72,000</u>
Total	<u>\$663,800</u>

## **COMMENTS:**

### **Frontline Workers**

Of the 320 trainees, 220 meet the Panel definition of frontline worker under Title 22 California Code of Regulations, Section 4400(ee). The remaining 100 trainees constitute 31.3 percent of the total trainee population.

### **Waiver Request**

**Request for Waiver of ETP 200-Hour Limit for Retraining:** Calpine has developed a training program for Job Number 3 trainees totaling approximately 480 hours (or 3 months of full-time work). Calpine is requesting ETP funding for 300 of the 480 training hours. Costs for the additional 180 hours in the total Job Number 3 program are included as an in-kind contribution. The Contractor has asked for the additional time based on the fact that these 20 trainees will be operating 5 new Calpine plants currently under construction – in Coyote, Fairfield, Lebec, San Diego and San Jose, California. For their jobs at the new plants, these 20 trainees require three months of full-time and continuous training prior to the plants' openings. The difference, 180 hours of training for these 20 individuals, will be provided at company expense – approximately \$46,800.

**Staff Recommendation:** Staff agrees that the proposed request for a waiver of the ETP 200-hour training limit for Job Number 3 deserves consideration by the Panel. However, due to circumstances that developed in Calpine's first ETP training project, there are additional factors that should be considered, as follows:

- Performance on Calpine's previous ETP Agreement project is unsatisfactory. Although official current earnings for Calpine's previous ETP Agreement (ET01-0178) are 0 percent, once all invoicing is completed, the total earnings are anticipated to be \$288,256, out of a maximum total dollar amount of \$1,087,340, for a performance rate of 26.5 percent.
- For the previous ETP Agreement, Calpine Corporation requested and received 400-hours of ETP-funded training for 75 trainees; however, during the previous project, it is estimated that only 16 of the 75 trainees completed this training, an anticipated success rate of 21.3 percent.

Based on this information, Staff has determined that the potential risks involved with a plan for more than 200 ETP-funded hours outweigh any potential mitigating factors. Therefore, Staff recommends that the requested additional 100 hours of training be denied and that Job Number 3 trainees be approved for 200 hours of ETP-funded training.

### **March 2003 Panel Meeting**

At the March 2003 Panel Meeting, the Panel raised the following questions and concerns regarding the applicant's training proposal:

1. How does Calpine expect better performance on this proposal compared to their previous ETP contract?

*Calpine officials state that the previous ETP-funded training project was done at a time when the company had no experience with the ETP program, nor any experience implementing company-wide, comprehensive training programs funded by the company. Calpine was in the process of creating a formal training department at the start of their last ETP proposal. In order to implement the first ETP-funded program, Calpine utilized the services of a subcontractor. Unfortunately, implementation of the training program was incomplete and found to be overly ambitious due to a misunderstanding of Calpine's business by the subcontractor.*

**COMMENTS:** (continued)

*For this proposal, Calpine officials have taken steps to ensure that this scenario will not be repeated. Company officials state that they have a better understanding of the training process and of ETP requirements. They have proposed to train significantly fewer individuals, resulting in a more realistic training plan, accounting for less than 25 percent of the maximum dollar amount of their previous ETP Agreement. Furthermore, Calpine will not subcontract with a training administrator, but will perform all administrative tasks themselves. As a result, the company expects a more favorable result.*

2. Apprenticeable Training Curriculum Topics:

Panel Members questioned whether there might be some overlap between the Commercial Skills portion of Calpine's curriculum with any existing apprenticeship program in the state.

*Calpine officials provided a comprehensive description of the Commercial Skills portion of the curriculum to Panel Staff. This curriculum was submitted to the Division of Apprenticeship Standards (DAS) of the California Department of Industrial Relations for review. DAS has provided verbal comments that there is duplication among some of the proposed training topics with the apprenticeable occupation of Stationary Engineer. Panel Staff is waiting for written confirmation from DAS identifying the duplicative training topics. Once the confirmation is received, those training topics will be deleted from the curriculum. This determination will impact the number of training hours questioned in item 3 below.*

3. Additional information regarding the waiver for more than 200 training hours:

Panel Members expressed concern over the applicant's request for 300 hours class/lab training for the 20 trainees in Job Number 3, in light of the performance on Calpine's previous ETP project.

*Company officials state that the twenty trainees in Job Number 3 will receive extensive and customized training in the operation of electric power plants. They state that the total training averages 480 hours per trainee, but some trainees may receive more, due to the complexity involved. Company officials report that high standards of operation and maintenance are required at each of their power plants, necessitating extensive training. If the company's request is approved, training hours provided beyond 300 would be paid by Calpine as an in-kind contribution.*

**PROPOSED ACTION:**

Staff recommends that the Panel approve this One-Step Agreement for Job Numbers 1 and 2 as written and delegate to the Executive Director the authority to finalize the training hours for Job Number 3 according to DAS written confirmation identifying duplicative training topics, if the Panel determines funding is available and the project meets Panel priorities. Company officials have stated that the training outlined in this proposal will provide employees with the occupational skills necessary for Calpine Operating Services Company and Calpine Corporation to significantly improve productivity and enhance overall business viability.

**TRAINING PLAN:**

<b>Job Numbers / Trainee Type</b>	<b>Types of Training</b>	<b>Number to Retain</b>	<b>Number Class/Lab Videocnf. Hrs</b>	<b>Number CBT Hrs</b>	<b>Number SOST Hrs.</b>	<b>Cost per Trainee</b>	<b>Hourly Wage after 90 days</b>
Job Number 1 Retrainees	Commercial Skills Computer Skills	200	40	0	0	\$520	*\$11.22-\$46.45
Job Number 2 Retrainees	Commercial Skills Computer Skills Management Skills	100	40	0	0	\$520	\$33.65-\$48.08
Job Number 3 Retrainees	Commercial Skills Computer Skills	20	300	0	0	\$3,900	\$27.00-\$35.00
					<b><u>Range of Hourly Wages</u></b> *\$11.22-\$48.08		
					<b><u>Prevalent Hourly Wage</u></b> \$25.40		
					<b><u>Average Cost per Trainee</u></b> \$731		
<b><u>Health Benefit used to meet ETP minimum wage:</u></b> * Employer-paid medical, dental, and vision benefits of at least \$.76 per hour may be added to the Job Number 1 retrainees' base wages to meet the ETP minimum wage in the following counties: \$11.98 per hour for Contra Costa and Santa Clara Counties and \$11.41 per hour for Sacramento County.				<b><u>Turnover Rate</u></b> 10.4%		<b><u>% of Mgrs &amp; Supervisors to be trained:</u></b> 31.3%	

Class/Lab

Trainees will receive any of the following:

40-300 Hours

COMMERCIAL SKILLS

PeopleSoft Procure to Payment Training (3 days)

Balance of Plant Course (15 days)

- Combined Cycle Overview
- Electrical Distribution
- Plant Water Systems
- Steam Systems
- Fuel Systems
- Compressed Air
- Fire Protection System
- Ammonia
- Cooling Tower
- Emissions System
- Plant Process Control System
- Boiler Feed Pump
- Misc Pumps
- Chemical Feed
- Ammonia Storage & Transfer
- Misc Buildings HVAC
- Water Treatment

Combustion Turbine Generator Training (10 days)

- Overview
- Fire Protection
- Lube Oil
- Control Oil
- Electrical Distribution
- Generator
- Turning Gear
- Control Valves
- Fuel Gas
- Compressor
- Combustor
- Power Turbine

Steam Turbine Generator Training (5 days)

- Overview
- Fire Protection
- Lube Oil
- Control Oil
- Electrical Distribution
- Generator
- Gland Steam

(continued)

Steam Turbine Generator Training (5 days) (continued)

- Turning Gear
- Control Valves
- HP Turbine



IP Turbine  
LP Turbine

Heat Recovery Steam Generator (HRSG) – Familiarization and Operations (2 days)

Steam Drums  
Boilers  
Superheaters  
De-Superheaters  
Risers  
Downcomers  
Blowdown  
Natural Circulation  
Economizers  
Water Chemistry

Operator Development (Site Specific) (5 days)

System P&ID's  
System Descriptions  
System Logic Diagrams  
Plant electrical drawings  
Plant Water Balance  
Plant Heat Balance  
Equipment Vendor Manuals

Maximo Training (3 days)

Navigation and basic MAXIMO functions  
Inventory & Purchasing  
Maintenance

Distributed Control Systems Hardware/Software (10 days)

Distributed Process Control Systems  
Digital Computers  
Hard-wired DCS Systems  
Go Live Maximo Plant Training (5 days)  
Operator Training  
Maintenance Training  
Inventory Training  
Purchasing Training  
Advanced Training (Reports, Equipment, Locations, Querying)  
DataSplice (Inventory Scanning tool)  
Plant Information

(continued)

MANAGEMENT SKILLS (only for trainees employed as Managers or Supervisors)

Performance Management Training  
Business Development Training  
Leadership Development Training

COMPUTER SKILLS

Software Applications (Word Processing, Spreadsheets, PowerPoint)

Database  
Project Management  
Document Control  
PeopleSoft (Accounting Software)  
Gatecycle (Power Plant Thermal Modeling Tool)  
Plant Information Training  
DataSplice Training (Inventory – Handheld Scanner)  
Maximo (Inventory and Maintenance Software)